

PRELIMINARY CONFERENCE PROGRAM

Tuesday, April 18, 2006

Alpine/Ponderosa Rooms

Rushmore Plaza Civic Center

7:15 - 8:00 a.m. Registration

8:00 - 8:10 a.m. Welcome, general information

Session 1 – Surface-Water Quality and Ecology (1.5 PDH)

8:10 - 9:50 a.m.

Alpine/Ponderosa Rooms

Moderator: **Dan Driscoll**, Chief of Hydrologic Studies, U.S. Geological Survey South Dakota Water Science Center, Rapid City, South Dakota

Presentations

8:10 – 8:30 a.m. - [1-1] M. Anderson, *Water availability for the Western United States—Key scientific challenges*

8:30 – 8:50 a.m. - [1-2] Hoyer and Schwickerath, *Belle Fourche River watershed restoration implementation, Belle Fourche River, South Dakota*

8:50 – 9:10 a.m. - [1-3] Erickson and Shearer, *Appearance of Didymosphenia geminata in the Black Hills of South Dakota*

9:10 – 9:30 a.m. - [1-4] Foreman and Hoyer, *Historic data analysis for the lower Cheyenne River watershed*

9:30 – 9:50 a.m. - [1-5] Patceg, Dababneh, Foreman, and Kenner, *Physical habitat assessment classification of the Cheyenne River below Angostura Dam*

9:50 – 10:15 a.m. Refreshment break

Session 2 – Contamination and Aquifer Vulnerability (1.0 PDH)

10:15 a.m. - 11:35 a.m.

Alpine/Ponderosa Rooms

Moderator: **Derric Iles**, State Geologist, South Dakota Department of Environment and Natural Resources, Geological Survey Program, Vermillion, South Dakota

Presentations

10:15 – 10:35 a.m. - [2-1] Stone, Stetler, Schwalm, Wintergerst, Walters-Clark, *Soil, water and air investigation concerning abandoned uranium mines in North Cave Hills Region, Custer National Forest*

10:35 – 10:55 a.m. - [2-2] Rahn, *Nitrate in Rapid City's water supply*

10:55 – 11:15 a.m. - [2-3] Long, Putnam, and Sawyer, *Environmental tracers as indicators of fast flowpaths and potential anthropogenic influence in the karstic Madison aquifer*

11:15 – 11:35 a.m. - [2-4] Sorensen, Davis, Dixon, and Webb, *Controlling factors on arsenic removal from water by limestone-based materials*

11:35 a.m. – 1:05 p.m.Luncheon

Rushmore H Room

Keynote speaker: Dr. James Fox (1.0 PDH)

South Dakota School of Mines and Technology

james.fox@sdsmt.edu

Title: *New Orleans, the Next Atlantis?*

Session 3 – Concurrent Session in Alpine Room

Hydrology Potpourri (1.5 PDH)

1:05 – 2:45 p.m.

Moderator: **Dr. Arden Davis**, Professor and Chairman, Geology and Geological Engineering Department, South Dakota School of Mines and Technology, Rapid City, South Dakota

Presentations

1:05 – 1:25 p.m. - [3-1A] Huq, *Mni Wiconi Rural Water that supplies water to one-sixth of South Dakota including Three Indian Reservations*

1:25 – 1:45 p.m. - [3-2A] Olson, *Operational model of the Belle Fourche Irrigation District*

1:45 – 2:05 p.m. - [3-3A] Shmagin and Chen, *Understanding and mapping water resources by multidimensional statistics and fuzzy logic: Missouri River Basin case*

2:05 – 2:25 p.m. - [3-4A] Doubkova and Henebry, *Sensitivity of the AMSR-E Vegetation Water Content product to precipitation events and mid-season dry spells*

2:25 – 2:45 p.m. - [3-5A] Wiles, *The potential extent of the Jewel Cave System*

Session 3 – Concurrent Session in Ponderosa Room

Surface-Water Modeling (1.5 PDH)

1:05 - 2:45 p.m.

Moderator: **Jenifer Sorensen**, South Dakota Engineering Society, Rapid City, South Dakota

Presentations

1:05 – 1:25 p.m. - [3-1P] Love and Donigian, *Complex watershed modeling in a semi-arid region with irrigation applications and channel losses*

- 1:25 – 1:45 p.m. - [3-2P] Love and Donigian, *The Unnamed River watershed model: model sensitivity and uncertainty analyses*
- 1:45 – 2:05 p.m. - [3-3P] Brich and Nelson, *An AnnAGNPS Non-Point Source Pollution Model ArcGIS interface*
- 2:05 – 2:25 p.m. - [3-4P] Wood, Wylie, Brown, Meyer, Maxwell, Reed, Kruger, and Brich, *Range condition as input to water-quality monitoring*
- 2:25 – 2:45 p.m. - [3-5P] Schoenfelder, *Hydraulic model of the Belle Fourche Irrigation District using EPA SWMM 5.0*

2:45 - 3:10 p.m.Refreshment break

Session 4 – Water Supply, Resources, and Management (1.5 PDH)
3:10 - 4:50 p.m.
Alpine/Ponderosa Rooms

Moderator: **Van Lindquist**, Administrative Manager, West Dakota Water Development District, Rapid City, South Dakota

Presentations

- 3:10 – 3:30 p.m. - [4-1] Everett, *South Dakota Forestry best management practices—Field audit and training project*
- 3:30 – 3:50 p.m. - [4-2] Driscoll and Sando, *Complicating factors for flood-frequency analysis for the Black Hills area of western South Dakota*
- 3:50 – 4:10 p.m. - [4-3] Patrick, Wegleitner, and Martin, *New methods in stratigraphic correlation: Pierre Shale, South Dakota*
- 4:10 – 4:30 p.m. - [4-4] Smith, *The National Weather Service’s Hydrology Program*
- 4:30 – 4:50 p.m. - [4-5] C. Anderson, *Sedimentation in Reclamation’s South Dakota Reservoirs*

4:50 - 5:00 p.m.Closing remarks